



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,241	06/23/2006	Shuya Kishimoto	040373-0392	1477

22428 7590 11/12/2009
FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

TRAN, PABLO N

ART UNIT	PAPER NUMBER
----------	--------------

2618

MAIL DATE	DELIVERY MODE
-----------	---------------

11/12/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/584,241	KISHIMOTO ET AL.	
	Examiner	Art Unit	
	Pablo N. Tran	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 6-8, 10-11, 17-19, and 21-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 12-16 is/are rejected.
- 7) ☒ Claim(s) 9 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakkis (US Pat No 6,694,131) and in view of Katagishi et al. (hereinafter "Katagishi", JP2000013246A).

As per claims 1-2, 12, and 14, Lakkis disclosed a radio communications apparatus for simultaneously transmitting a local oscillation signal used when an intermediate frequency band signal is converted to a radio frequency band signal by a mixer unit, wherein a modulation scheme is utilized in accordance with the quality communication and a step for controlling an output power of the local oscillation signal in accordance with the quality of communication (see fig. 3, fig. 7, col. 2/ln. 41-col. 3/ln. 24, col. 4/ln. 57-col. 7/ln. 15).

Lakkis does not explicitly disclose a modulation scheme changing control unit. However, Katagishi disclose such modulation scheme selection communication system (fig. 1-5, abstract). Therefore, it would have been obvious to one of ordinary skill in the

Art Unit: 2618

art at the time of invention for Lakkis to utilize such method, as taught by Katagishi, to reduce current consumption and suppressed signal distortion.

As per claims 3 and 13, the modified communication system of Lakkis and Katagishi further disclosed bit error rate (see Lakkis, fig. 3/no. 346).

As per claims 4 and 15, the modified communication system of Lakkis and Katagishi further disclosed the mixer unit can control an output power of the local oscillation signal under the control of the control means (see fig. 3, fig. 7, and col. 2/ln. 41-col. 3/ln. 24, and col. 4/ln. 57-col. 7/ln. 15, see Katagishi, abstract).

As per claims 5 and 16, the modified communication system of Lakkis and Katagishi further disclosed said mixer unit has two mixers (see fig. 3/no. 312, 314) each supplied with the intermediate frequency band signal and the local oscillation signal for delivering the radio frequency band signal and the local oscillation signal; and a combiner (see fig. 3/no. 330) for combining the radio frequency band signals and the local oscillation signals supplied from said two mixers, respectively, wherein said control means controls the phases of the local oscillation signals delivered from said two mixers (see fig. 3, fig. 7, col. 2/ln. 41-col. 3/ln. 24, col. 4/ln. 57-col. 7/ln. 15).

Allowable Subject Matter

3. Claims 9 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed 06/17/09 have been fully considered but they are not persuasive.

In response to the Applicant's arguments, the claimed limitation for which the Applicant's relied upon, "transmitting a local oscillation signal to a radio frequency band signal by a mixer unit", does not constitute that the radio communication apparatus is a transmitter. Furthermore, the Applicant does not explicitly claim that the radio communications apparatus is a transmitter. Therefore, the limitation is met and thus the rejection is proper.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pablo Tran whose telephone number is (571)272-7898. The examiner normal hours are 9:30 -5:00 (Monday-Friday). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) System. Status information for Published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-directauspto.gov>. Should

Art Unit: 2618

You have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (in USA or CANADA) or 571-272-1000.

November 8, 2009

/Pablo N Tran/

Primary Examiner, Art Unit 2618